AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

Claim 1. (Previously Presented) A system for implementing a plurality of services, the system comprising:

a service controller, configured to provide service policy and logic associated with the plurality of services in response to service requests initiated by end users; and

a network connection capability comprising:

a switching device, configured to establish connections over a network;

a switch controller having a bearer function and a virtual switch control function for controlling said switching device based on network policy and logic; and

a proxy device that correlates the service requests with respective services of a the plurality of services in response to a network connection request to enable the associated service policies and logic provided by a the service controller, and that initiates connections to the network via the switch controller based on at least the associated service policy and logic of the requested services.

Claim 2. (Previously Presented) The system of claim 1, wherein said switching device and said switch controller comprise a conventional switch.

Claim 3. (Previously Presented) The system of claim 2, wherein said conventional switch comprises an ATM Switch.

Claim 4. (Previously Presented) The system of claim 1, wherein said switching

device and said switch controller comprise a next generation switch.

Claim 5. (Canceled)

Claim 6. (Previously Presented) The system of claim 1, wherein said switching device includes said switch controller.

Claim 7. (Previously Presented) A method for controlling network connections based on policy and logic of requested services, the method comprising:

receiving, from an initiating customer, a request for at least one service of a plurality of services;

obtaining predetermined data related to the at least one requested service, the predetermined data correlating to at least one of a policy and logic corresponding to the requested service;

instructing the initiating customer to initiate a predetermined setup identifying the requested service and, in response to the predetermined setup, initiating a network connection based on the at least one policy and logic corresponding to the requested service;

passing a first predetermined signal across a network in response to the predetermined setup;

initiating a second predetermined setup, in response to the passed first predetermined signal;

passing a second predetermined signal across the network in response to the second predetermined setup, the second predetermined signal indicating whether to allow the network connection based on at least one of policy and logic of the network; and

providing to the initiating customer a response indicating whether the network connection is allowed.

Claim 8. (Original) The method of claim 7, wherein obtaining comprises pushing the predetermined data.

Claim 9. (Previously Presented) The method of claim 8, wherein the pushing predetermined data comprises pushing the at least one of policy and logic representing at least one of service capabilities and service permissions.

Claim 10. (Original) The method of claim 7, wherein obtaining comprises pulling the predetermined data.

Claim 11. (Original) The method of claim 7, wherein obtaining comprises querying a service control module for the predetermined data.

Claim 12. (Original) The method of claim 7, further comprising using a certificate to specify permitted setup parameters.

Claim 13. (Original) The method of claim 12, further comprising encrypting the certificate.

Claim 14. (Original) The method of claim 13, further comprising assigning a sequence number to the encrypted certificate.

Claim 15. (Original) The method of claim 12, wherein the certificate further identifies which service allowed the setup.

Claim 16. (Original) The method of claim 12, further comprising determining whether the certificate is valid.

Claim 17. (Original) The method of claim 12, further comprising preventing reuse of

the certificate.

Claim 18. (Original) The method of claim 17, wherein preventing comprises examining a sequence number assigned to the certificate to determine whether the sequence number was seen before.

Claim 19. (Previously Presented) The method of claim 17, wherein preventing comprises examining at least one of a time-stamp and a date-stamp to determine whether the at least one of the time-stamp and the date-stamp exceeds a predetermined delta value.

Claim 20. (Previously Presented) A method for controlling connections to a network based on policy and logic of requested services, the method comprising:

receiving, at a service controller , a service request initiated by an initiating customer;

obtaining predetermined data from the service controller related to at least one of policy and logic of the requested service;

establishing a connection to the network using a first predetermined setup, initiated to realize the requested service in accordance with the at least one policy and logic of the service; and

initiating a second predetermined setup to one of accept and reject the requested network connection on behalf of the requested service and in accordance with at least one of policy and logic of the network.

Claim 21. (Previously Presented) The method of claim 20, wherein obtaining the predetermined data for the requested service comprises using a pushing procedure.

Claim 22. (Previously Presented) The method of claim 20, wherein obtaining the predetermined data for the requested service comprises using a pulling procedure.

Claim 23. (Previously Presented) The method of claim 20, wherein obtaining the predetermined data for the requested service comprises using a query procedure.

Claim 24. (Previously Presented) The method of claim 20, further comprising requesting the initiating customer to initiate the predetermined setup as a user-to network interface setup.

Claim 25. (Previously Presented) The method of claim 20, the network comprising an ATM network, wherein establishing the network connection to realize the requested service comprises transferring the first predetermined setup over the ATM network, the first predetermined setup being redirected from a switching device to a the service controller.

Claim 26. (Original) The method of claim 25, further comprising controlling the switching device with a switch controller, the switch controller being integral with the switching device.

Claim 27. (Original) The method of claim 25, further comprising controlling the switching device with a switch controller, the switch controller being integral with the service controller.

Claim 28. (Previously Presented) The method of claim 20, wherein obtaining the predetermined data for the requested service comprises providing a certificate for establishing the network connection in combination with the predetermined setup.

Claim 29. (Previously Presented) The method of claim 28, wherein the certificate specifies at least a permitted setup parameter.

6

Claim 30. (Original) The method of claim 28, further comprising encrypting the certificate.

Claim 31. (Original) The method of claim 30, further comprising assigning a sequence number to the encrypted certificate.

Claim 32. (Previously Presented) The method of claim 28, wherein the certificate further identifies the requested service, which allowed the setup.

Claim 33. (Original) The method of claim 28, further comprising determining whether the certificate is valid.

Claim 34. (Original) The method of claim 28, further comprising preventing reuse of the certificate.

Claim 35. (Original) The method of claim 34, wherein preventing comprises examining a sequence number assigned to the certificate to determine whether the sequence number was previously examined.

Claim 36. (Original) The method of claim 34, wherein preventing comprises examining at least one of a time-stamp and a date-stamp to determine whether the at least one of the time-stamp and the date-stamp exceeds a predetermined delta value.

Claim 37. (Previously Presented) The method of claim 7, wherein the predetermined setup comprises a UNI setup, the first predetermined signal comprises a PNNI protocol, and the second predetermined setup comprises a second UNI setup.

Claim 38. (Original) The method of claim 20, wherein the predetermined setup comprises a user-to-network interface setup.

Claims 39-50. (Canceled)

Claim 51. (Currently Amended) A method for controlling customer access to capabilities of a network associated with a network service, the method comprising:

receiving from a customer system a request for the network service;

instructing the customer system to perform a connection setup request, the instructing comprising a certificate and specification of a unique identifier to be included in the connection setup request, the unique identifier correlating the connection setup request and the network service;

receiving from the customer system, at a network connection capability, the connection setup request, including the unique identifier;

processing the connection setup request based on the certificate and the unique identifier and at least one of policy and logic associated with the network service; and

performing one of establishing a network connection and rejecting the connection setup request based on the processing, in accordance with the certificate and the at least one of service policy and logic.

Claims 52-55. (Canceled)

Claim 56. (Currently Amended) A system for controlling customer access to capabilities of a network associated with a network service, the system comprising:

a service controller that receives a request for the network service from a customer system and instructs the customer system to perform a connection setup request, the instructing comprising a certificate and specification of a unique identifier to be included in the connection setup request, the unique identifier correlating the connection setup request and the network service; and

8

a network connection capability controller that receives the connection setup request, including the certificate and the unique identifier, from the customer system;

wherein the network connection capability controller processes the connection setup request based on the certificate, the unique identifier and at least one of policy and logic associated with the network service, and performs one of establishing a network connection and rejecting the connection setup request based on the processing, in accordance with the certificate and the at least one of policy and logic.

Claims 57-60 (Canceled).